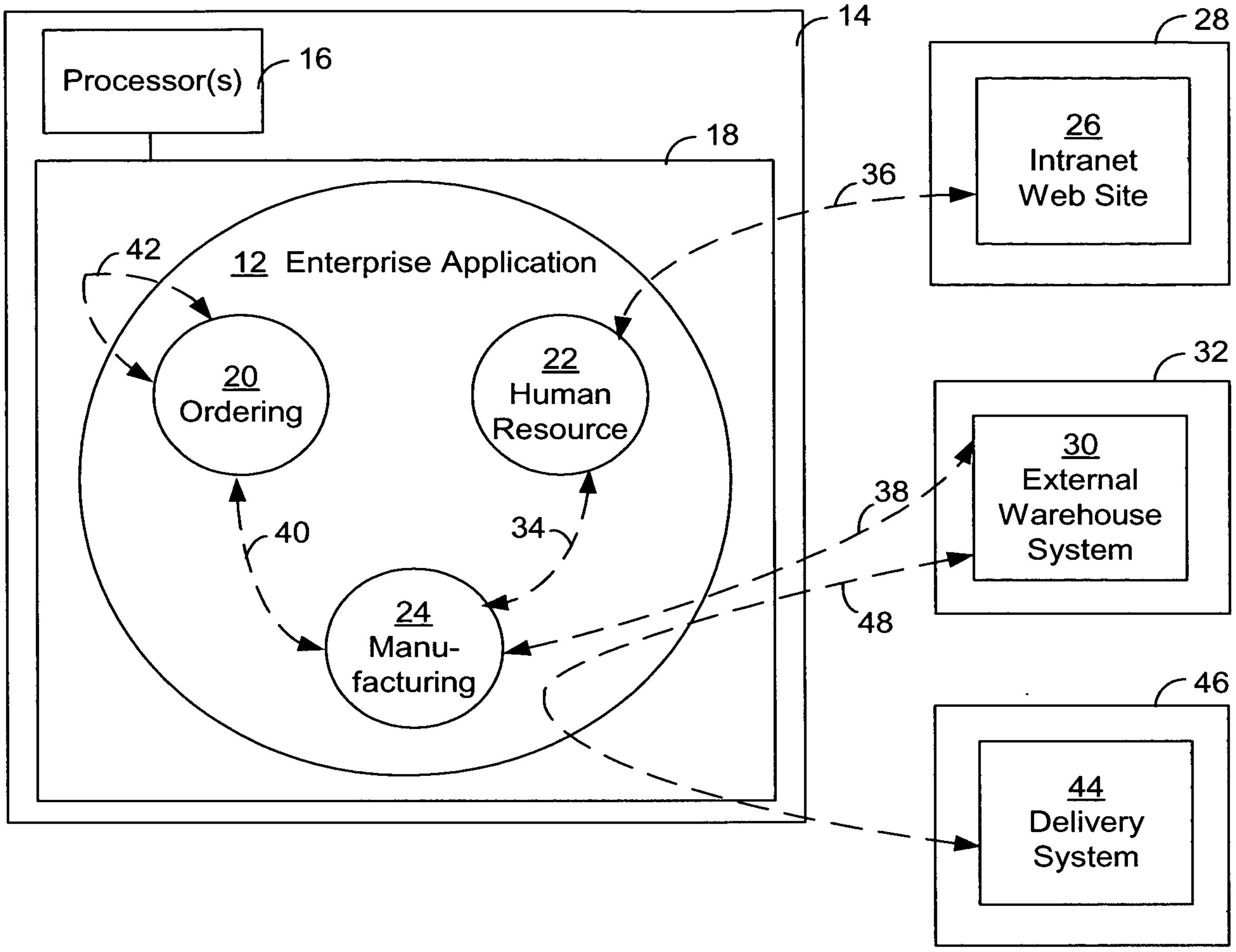

Processor(s)
12 Enterprise Application
20 Ordering
22 Human Resource
24 Manu-facturing
26 Intranet Web Site
30 External Warehouse System
44 Delivery System

Fig. 1

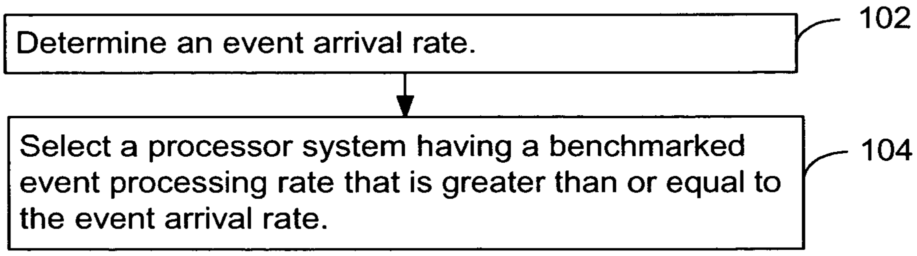

Determine an event arrival rate.
102
Select a processor system having a benchmarked event processing rate that is greater than or equal to the event arrival rate.
104

Fig. 3

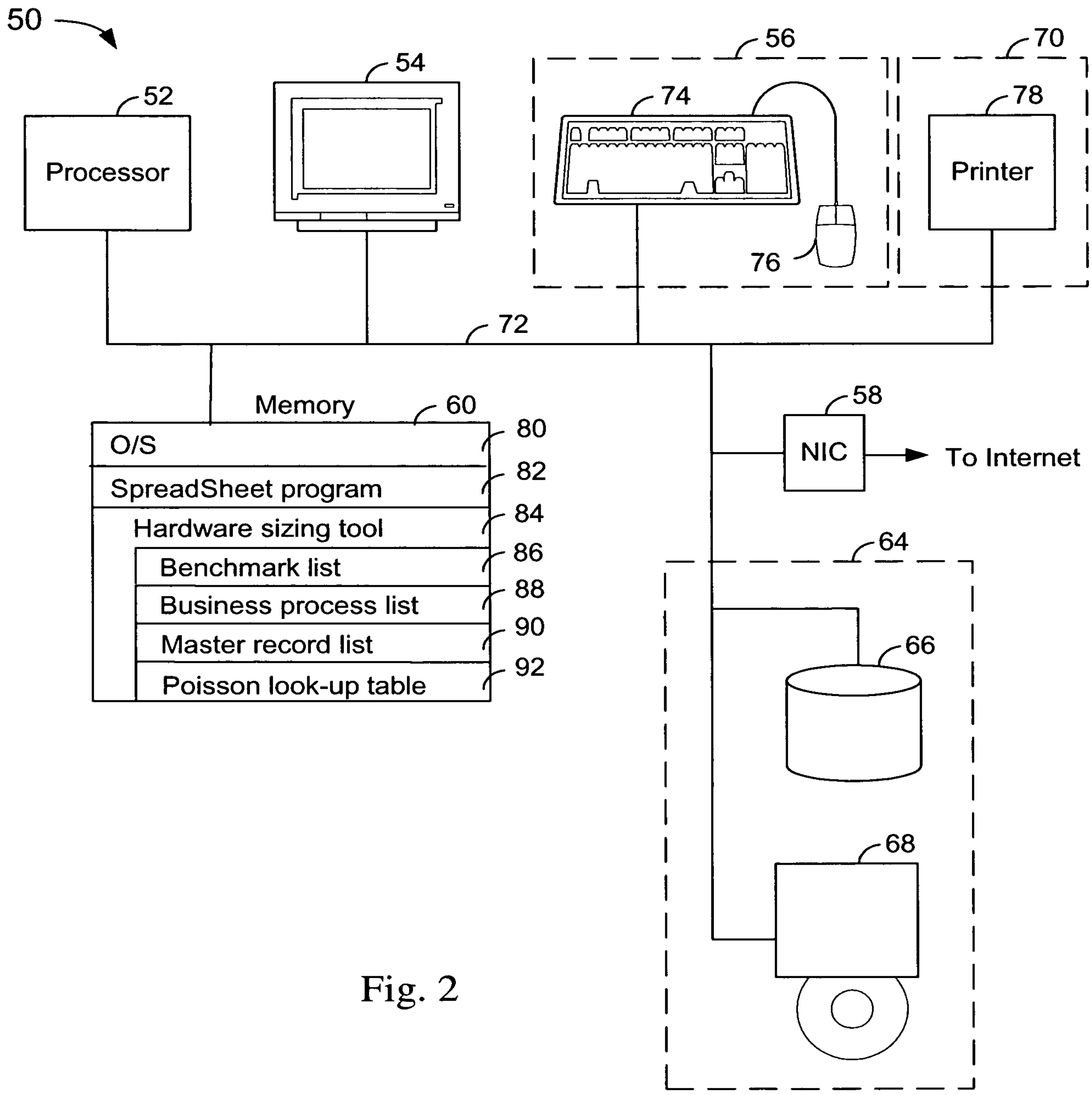

Processor
Printer
Memory
O/S
SpreadSheet program
Hardware sizing tool
Benchmark list
Business process list
Master record list
Poisson look-up table
NIC
To Internet

Fig. 2

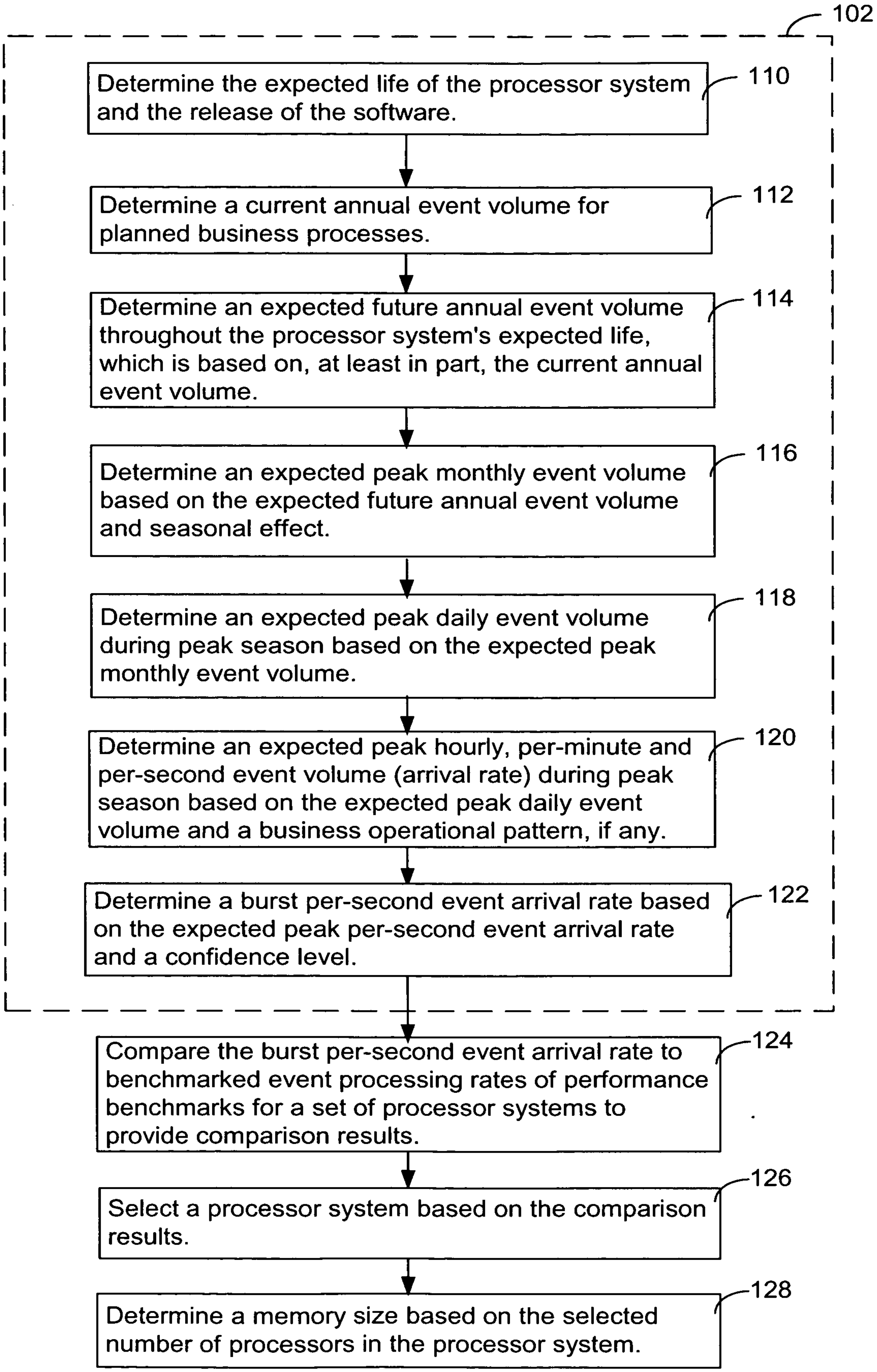

102
Determine the expected life of the processor system and the release of the software.
110
Determine a current annual event volume for planned business processes.
112
Determine an expected future annual event volume throughout the processor system's expected life, which is based on, at least in part, the current annual event volume.
114
Determine an expected peak monthly event volume based on the expected future annual event volume and seasonal effect.
116
Determine an expected peak daily event volume during peak season based on the expected peak monthly event volume.
118
Determine an expected peak hourly, per-minute and per-second event volume (arrival rate) during peak season based on the expected peak daily event volume and a business operational pattern, if any.
120
Determine a burst per-second event arrival rate based on the expected peak per-second event arrival rate and a confidence level.
122
Compare the burst per-second event arrival rate to benchmarked event processing rates of performance benchmarks for a set of processor systems to provide comparison results.
124
Select a processor system based on the comparison results.
126
Determine a memory size based on the selected number of processors in the processor system.
128

Fig. 4

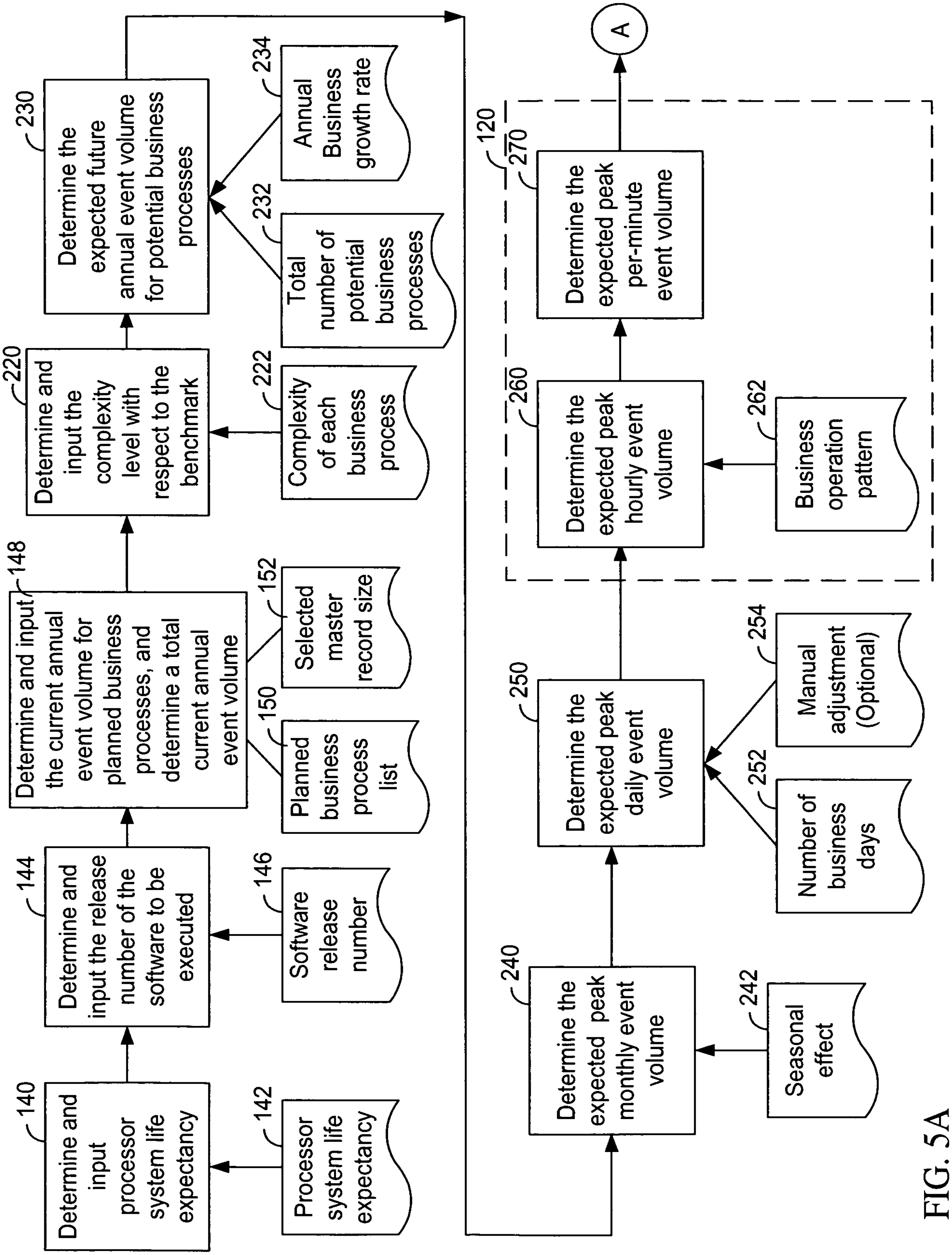

140
Determine and input processor system life expectancy
142
Processor system life expectancy
144
Determine and input the release number of the software to be executed
146
Software release number
148
Determine and input the current annual event volume for planned business processes, and determine a total current annual event volume
150
Planned business process list
152
Selected master record size
220
Determine and input the complexity level with respect to the benchmark
222
Complexity of each business process
230
Determine the expected future annual event volume for potential business processes
232
Total number of potential business processes
234
Annual Business growth rate
240
Determine the expected peak monthly event volume
242
Seasonal effect
250
Determine the expected peak daily event volume
252
Number of business days
254
Manual adjustment (Optional)
120
260
Determine the expected peak hourly event volume
262
Business operation pattern
270
Determine the expected peak per-minute event volume
A

FIG. 5A

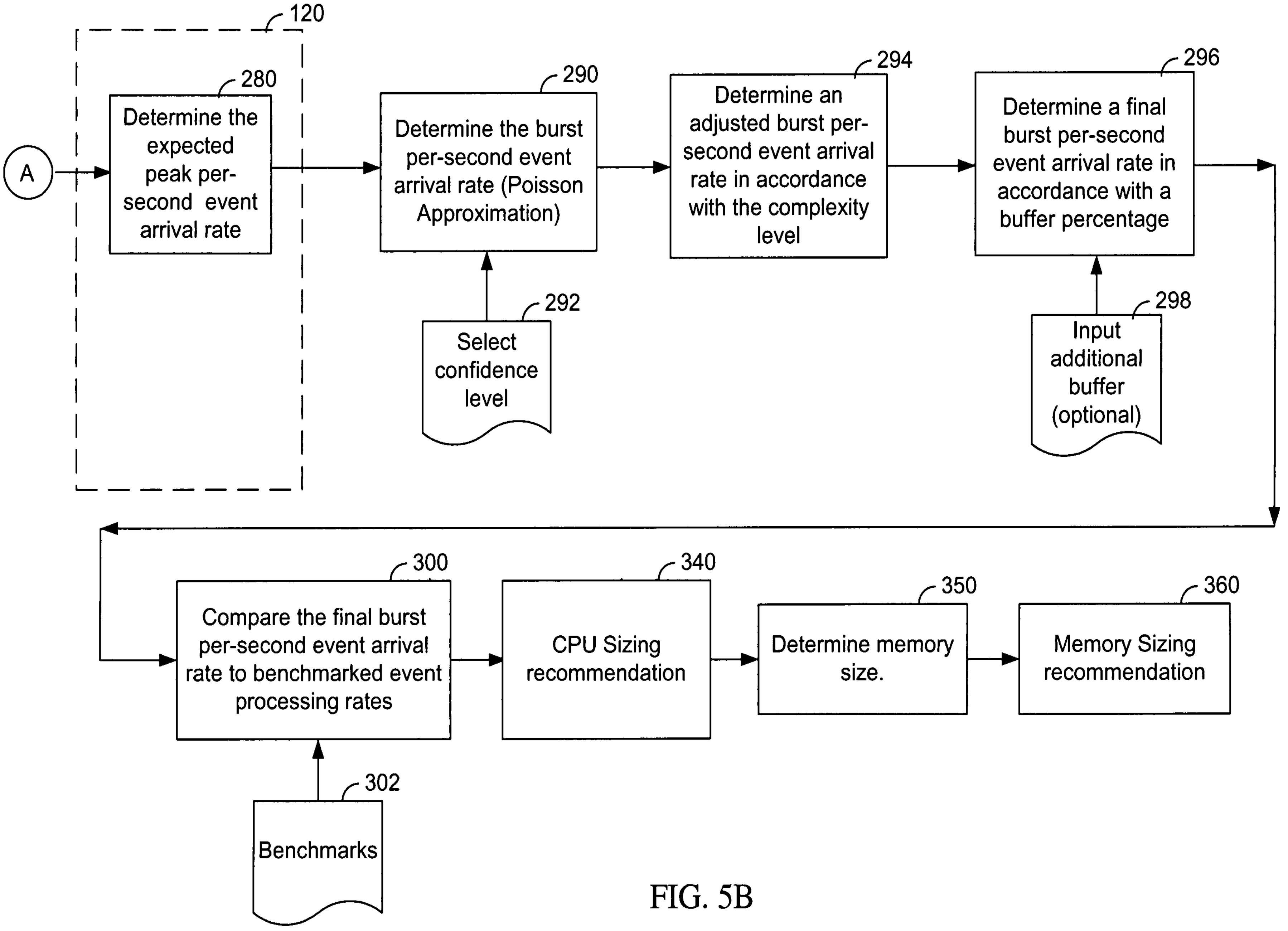

120
A
280
Determine the expected peak per-second event arrival rate
290
Determine the burst per-second event arrival rate (Poisson Approximation)
292
Select confidence level
294
Determine an adjusted burst per-second event arrival rate in accordance with the complexity level
296
Determine a final burst per-second event arrival rate in accordance with a buffer percentage
298
Input additional buffer (optional)
300
Compare the final burst per-second event arrival rate to benchmarked event processing rates
302
Benchmarks
340
CPU Sizing recommendation
350
Determine memory size.
360
Memory Sizing recommendation

FIG. 5B

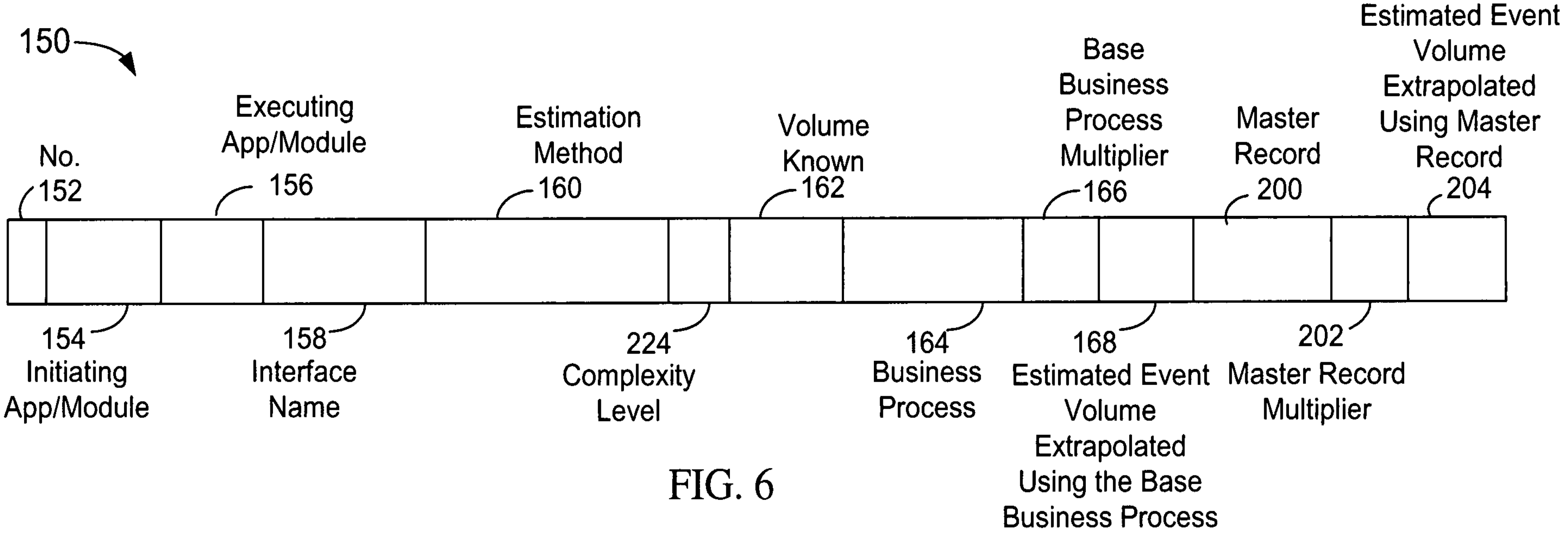
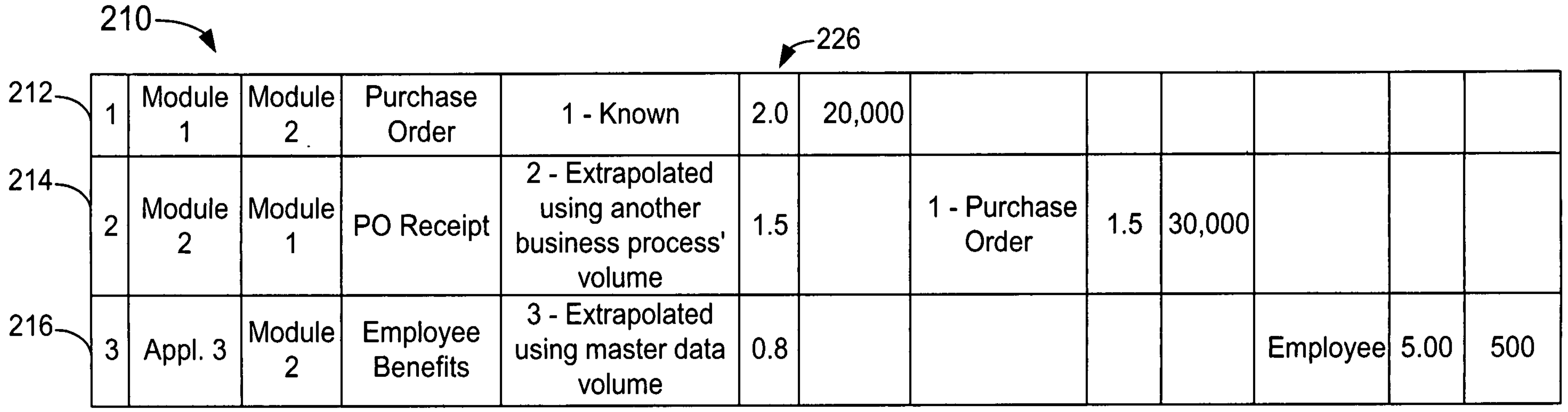
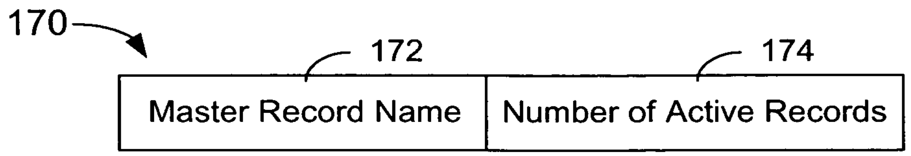


FIG. 6


210
226
212
214
216

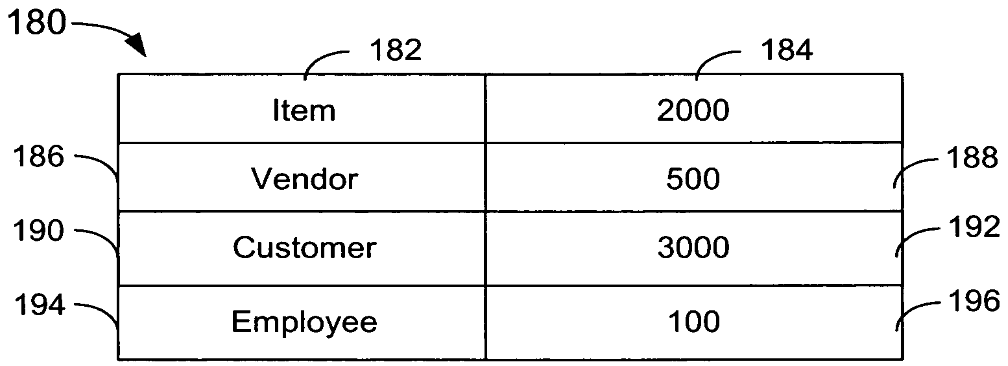
1	Module 1	Module 2	Purchase Order	1 - Known	2.0	20,000						
2	Module 2	Module 1	PO Receipt	2 - Extrapolated using another business process' volume	1.5		1 - Purchase Order	1.5	30,000			
3	Appl. 3	Module 2	Employee Benefits	3 - Extrapolated using master data volume	0.8					Employee	5.00	500

FIG. 9



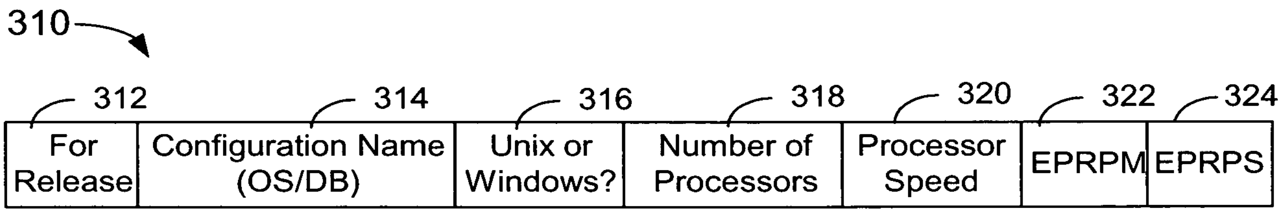
Master Record Name	Number of Active Records

Fig. 7


180
182
184
186
188
190
192
194
196

Item	2000
Vendor	500
Customer	3000
Employee	100

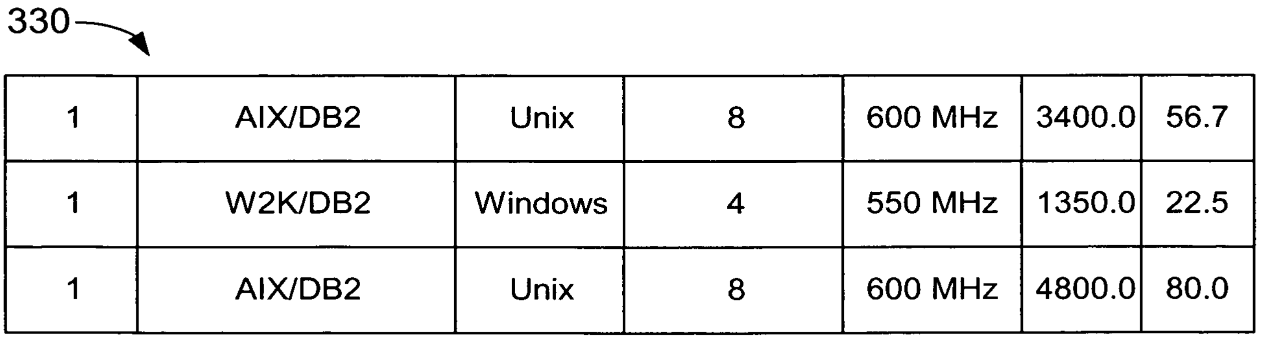
Fig. 8


310
312
314
316
318
320
322
324

For Release	Configuration Name (OS/DB)	Unix or Windows?	Number of Processors	Processor Speed	EPRPM	EPRPS

Benchmark by Hardware Configuration

Fig. 10



1	AIX/DB2	Unix	8	600 MHz	3400.0	56.7
1	W2K/DB2	Windows	4	550 MHz	1350.0	22.5
1	AIX/DB2	Unix	8	600 MHz	4800.0	80.0

Exemplary Benchmarks

Fig. 11